



**Physician associates working in secondary care teams in England: interprofessional implications from a national survey**

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7 **Physician associates working in secondary care teams in England:**  
8 **interprofessional implications from a national survey**

Comment [CW1]: Amended title

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14 **Abstract**

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16 Physician associates (PAs) are a new type of healthcare professional to the United  
17 Kingdom; however they are well established in the United States (where they are  
18 known as physician assistants). Physician associates are viewed as one potential  
19 solution to the current medical workforce doctor shortage. This study investigated the  
20 deployment of PAs within secondary care teams in England, through the use of a  
21 [cross-sectional](#) electronic, self-report survey. [The findings from 14 questions are](#)  
22 [presented.](#) Sixty-three PAs, working in a range of specialties responded. A variety of  
23 work settings were reported, most frequently in-patient wards, with work generally  
24 taking place during weekdays. Both direct and non-direct patient care activities were  
25 reported, with the type of work undertaken varying at times, depending on the  
26 presence or absence of other healthcare professionals. Physician associates  
27 reported working within a variety of secondary care team staffing permutations, with  
28 the majority of these being interprofessional. Line management was largely provided  
29 by consultants, however day-to-day supervision varied, often relating to different  
30 work settings. A wide variation in on-going supervision was also reported. Further  
31 research is required to understand the nature of PAs' contribution to collaborative  
32 care within secondary care teams in England.

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49 **Key terms:** [Physician associates; physician assistants; secondary care; secondary](#)  
50 [care teams](#)

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## Introduction

Ensuring that health care teams have a mix of skilled professionals to meet patient need and deliver safe and cost effective services is a major imperative in all health care services. The health services in the United Kingdom (UK), like a number of other countries, have been exploring the contribution that physician associates can make to health care teams. Physician associates, known internationally as physician assistants (both abbreviated as PAs), are a relatively new type of health professional in the United Kingdom (UK).

Established in the United States (US) for almost 50 years, the role has also seen recent growth in other countries including Canada, the Netherlands and Australia (Cawley & Hooker, 2013). Trained in the medical model at a postgraduate level, PAs work within the medical team as mid-level practitioners, under defined levels of supervision by a doctor (Cawley & Hooker, 2013).

In the UK, PAs are viewed as one of many potential workforce solutions to a shortage of doctors and rising demand for services; however they do not currently have authority to prescribe medications (Health Education England, 2015). The number of PAs working in the UK is set to rise rapidly – UK Universities intended to enrol around 580 PA students in 2016, to add to the 288 believed to be qualified PAs in the UK (Ritsema, 2016).

Physician associates responding to a UK national census reported working mostly in secondary care specialties (Ritsema, 2016). In the US, great variation has been described with regard to their supervisory arrangements and the specialties and types of teams they work in (Cawley & Hooker, 2013). Different models of PAs

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7 working in medical ward care have also been described in the Netherlands  
8 (Timmermans et al., 2016).  
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11 While there is evidence about the ways in which PAs work within primary care teams  
12 in the UK (Drennan et al., 2012; Drennan et al., 2015), limited research has been  
13 conducted in secondary care (i.e. consultant led services provided predominantly  
14 in/by hospitals). As part of an on- going investigation exploring the contribution of  
15 PAs in secondary care in England (National Institute for Health Research, 2015), this  
16 paper reports on a survey that sought to describe the deployment of PAs in  
17 secondary care teams.  
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## 25 **Methods**

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28 This cross-sectional study utilised an online, self-report survey hosted by  
29 SurveyMonkey™.  
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### 32 *Data collection*

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35 The survey consisted of 19 questions, with the findings from 14 questions presented  
36 in this report. [The survey](#) questions focused on PAs' work setting, supervision and  
37 the secondary care teams within which they were working. Qualified PAs practising  
38 in secondary care in England were invited to participate through the Faculty of the  
39 Physician Associates at the Royal College of Physicians (FPARCP) and University  
40 course directors who approached their alumni; at least two reminders were sent. At  
41 the time that invitations were sent, it was believed that there were 288 qualified PAs  
42 working in the UK; however there was no information available as to how many were  
43 practising in secondary care in England. Anonymous responses were collected over  
44 a one month period in spring 2016.  
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### *Data analysis*

Data from closed questions were used to produce frequency counts and data from open questions were analysed thematically.

### *Ethical considerations*

[This study was approved by the Faculty of Health, Social Care and Education Research Ethics Committee at Kingston University and St George's University London.](#)

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### **Results**

Of the 288 PAs believed to be qualified in the UK, 63 working in secondary care in England responded to the survey. There were missing data in 14 survey responses. Fifty-six PAs reported working in 33 secondary care specialties, with acute medicine having the largest number (n=10). Other specialties most frequently reported included elderly care medicine (n=8); trauma and orthopaedic surgery (n=8), accident and emergency (n=7), neuro-surgery (n=4), cardiology (n=3) and general medicine (n=3). Most PAs (n=42) were working in a single specialty, however two PAs reported being on rotational programmes that would subsequently involve experience of other specialties.

The most frequently reported work settings were inpatient wards (n=38), emergency departments (n=18), outpatient departments (n=13), medical assessment units (n=12) and operating theatres (n=9); missing data (n=8). Twenty-five PAs were working in multiple settings within their specialty and they frequently described how

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7 their time was formally organised between different settings – by time of day, day of  
8 the week or weekly. As one respondent noted:

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11 “Six-week rotation. Three weeks on ward, one week of evening shifts,  
12 one week of clinic/theatre/on-call. One week of [subspecialty] ward  
13 rounds” (Respondent ID 06)

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14 Of the 50 PAs who provided information on their shift patterns during the past four  
15 weeks, 14 had worked on the weekend and one at night. A typical shift included both  
16 direct and non-direct patient care activities:  
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21 “...part of the consultant ward round, carry out jobs following ward  
22 round such as requesting tests, performing clinical procedures,  
23 discussions with other specialties or with families, writing discharge  
24 letters. Also I clerk new medical patients...” (Respondent ID 39)

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27 Twenty PAs (of the 52 who answered this question) described various factors,  
28 predominantly the absence of healthcare professionals, which changed the type of  
29 work they performed:  
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34 “I cover the nurse specialist clinic if she is away. I cover the  
35 registrar clinic if they are on leave or busy” (Respondent ID 44)

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38 Fifty-five physician associates reported working in secondary care teams comprising  
39 18 different staffing permutations. Forty-one PAs reported working in  
40 interprofessional teams that included at least one type of doctor and one clinical  
41 nurse specialist (Table 1). Forty-six described working in a team with at least one  
42 other PA.  
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Table 1. Reported members of the teams PAs were working in

Consultant(s)	Team members						PA responses (not answered=8)
	Specialty training doctor(s)	Non-career doctor(s)	Foundation programme doctor(s)	Physician associate(s)	Clinical nurse specialist(s)	Other healthcare professional(s)	
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✓	✓	✓	✓	✓	✓	✓	8
✓	✓		✓	✓	✓		6
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				✓	✓		1

Of the fifty-four PAs who reported their line management arrangements, forty-four were managed solely by a consultant. Other line managers included a consultant plus another healthcare professional, a service manager, and a PA. However, for the forty-eight PAs (missing data n=13) who described having day-to-day supervision in place (two did not), this was not always reported as being provided by a consultant (n=18), but also jointly by a consultant and another grade of doctor (n=25), or solely

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7 by another grade of doctor (n=5), with different arrangements reported by work  
8 setting:  
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12 "I am supervised by the registrar on the team when working on  
13 the ward and by the consultant when in clinic or theatre"  
14 (Respondent ID 02)

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17 Of the forty-eight PAs who reported on their on-going educational and/or clinical  
18 supervision, 38 were receiving supervision, however this varied widely in terms of  
19 frequency and type of supervision. Twelve PAs reported no on-going supervision.  
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## 24 Discussion

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27 Sixty-three PAs working in a range of specialties reported information on their  
28 deployment in secondary care teams in England. The majority of PAs reported  
29 working as part of multi-level, interprofessional teams, mostly in ward settings and  
30 during weekday hours; with their work within these teams varying at times,  
31 depending on the presence or absence of healthcare professionals. Extending  
32 knowledge beyond the annual UK census (Ritsema, 2016), this paper highlights the  
33 diversity of work activities and interprofessional team working of PAs, reflecting work  
34 patterns in the US (Cawley & Hooker, 2013). Additionally, the variation in supervisory  
35 arrangements within the interprofessional setting for this new role is an issue that  
36 may warrant further attention.  
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47 This study has a number of limitations, including difficulty in determining an accurate  
48 response rate, as published numbers of PAs in secondary care in England are not  
49 available. Moreover, the self-report, cross-sectional design only provides a snapshot  
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7 in time. However, the range of specialties reported reflects those already known  
8 (Ritsema, 2016), suggesting a breadth of respondents.  
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### 10 11 **Concluding comments**

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13 This research provides novel evidence on the variety of ways in which PAs – a role  
14 new to the UK – are deployed and managed within secondary care teams in  
15 England. However, further investigation is required to understand the nature of PAs'  
16 contribution – including their impact on patient care, interprofessional practice, and  
17 the organisational context and costs within these teams.  
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### 23 24 **Funding**

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25  
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30 The views and opinions expressed herein are those of the authors and do not  
31 necessarily reflect those of the HS&DR Programme, NIHR, NHS or the Department  
32 of Health.  
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